

WHAT IS CLAIMED IS:

1. A component mounting apparatus comprising:

a board transfer section for carrying in one of circuit boards to a component mounting position and carrying out the circuit board after component-mounting;

a component feed section for feeding to a specified position a component to be mounted onto the circuit board;

a component mounting section for loading a suction nozzle matching the component to be mounted, sucking up the component from the component feed section and moving the component to the mounting position, and mounting the component to a specified site of the circuit board;

a controller for controlling operations of the individual sections to execute a productional operation of component-mounting onto the circuit boards; and

a remaining-component discarding device for performing an operation of discarding a component which remains at the suction nozzle during a time period for which the component-mounting operation by the component mounting section is kept halted.

2. A component mounting apparatus according to Claim 1, wherein the component mounting section selects the suction nozzle matching the component to be mounted, from

among a plurality of suction nozzles, and loads the suction nozzle.

3. A component mounting apparatus comprising:

5 a board transfer section for carrying in one of circuit boards to a component mounting position and carrying out the circuit board after component-mounting;

a component feed section for feeding to a specified position a component to be mounted onto the circuit board;

10 a component mounting section for selecting and loading a suction nozzle matching the component to be mounted, from among a plurality of suction nozzles, sucking up the component from the component feed section and moving the component to the mounting position, and mounting the
15 component to a specified site of the circuit board;

a controller for controlling operations of the individual sections to execute a productional operation of component-mounting onto the circuit boards; and

20 a nozzle identifying device for performing an operation of identifying the suction nozzle during a time period for which the component-mounting operation by the component mounting section is kept halted.

4. A component mounting apparatus comprising:

25 a board transfer section for carrying in one of circuit boards to a component mounting position and

carrying out the circuit board after component-mounting;

a component feed section for feeding to a specified position a component to be mounted onto the circuit board; and

5 a component mounting section for selecting and loading a suction nozzle matching the component to be mounted, from among a plurality of suction nozzles, sucking up the component from the component feed section and moving the component to the mounting position, and mounting the
10 component to a specified site of the circuit board;

a controller for controlling operations of the individual sections to execute a productional operation of component-mounting onto the circuit boards;

a remaining-component discarding device for
15 performing an operation of discarding a component which remains at the suction nozzle during a time period for which the component-mounting operation by the component mounting section is kept halted; and

a nozzle identifying device for performing an
20 operation of identifying the suction nozzle during a time period for which the component mounting operation by the component mounting section is kept halted.

5. The component mounting apparatus according to Claim 1, wherein the time period for which the component
25 mounting operation is kept halted is a time elapse since

the circuit board after the component mounting is carried in by the board transfer section until a next circuit board is carried in to the mounting position.

6. The component mounting apparatus according to
5 Claim 2, wherein the time period for which the component mounting operation is kept halted is a time elapse since the circuit board after the component mounting is carried in by the board transfer section until a next circuit board is carried in to the mounting position.

10 7. The component mounting apparatus according to Claim 3, wherein the time period for which the component mounting operation is kept halted is a time elapse since the circuit board after the component mounting is carried in by the board transfer section until a next circuit board
15 is carried in to the mounting position.

8. The component mounting apparatus according to Claim 4, wherein the time period for which the component mounting operation is kept halted is a time elapse since the circuit board after the component mounting is carried
20 in by the board transfer section until a next circuit board is carried in to the mounting position.

9. The component mounting apparatus according to Claim 3, wherein the identifying operation by the nozzle identifying device is an identification as to whether or
25 not a suction nozzle has been loaded to a specified

position.

10. The component mounting apparatus according to Claim 4, wherein the identifying operation by the nozzle identifying device is an identification as to whether or
5 not a suction nozzle has been loaded to a specified position.

11. The component mounting apparatus according to Claim 3, wherein the identifying operation by the nozzle identifying device is an operation for identifying a
10 coincidence between the loaded suction nozzle and control data.

12. The component mounting apparatus according to Claim 4, wherein the identifying operation by the nozzle identifying device is an operation for identifying a
15 coincidence between the loaded suction nozzle and control data.